

Product datasheet for MC227661

Arid5a (NM_001290727) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Arid5a (NM_001290727) Mouse Untagged Clone

Tag: Tag Free Symbol: Arid5a

Synonyms: D430024K22Rik; Mrf1

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

Cell Selection: Neomycin

Fully Sequenced ORF: >MC227661 representing NM_001290727

Red=Cloning site Blue=ORF Orange=Stop codon

ATGGCCAAGGAGCTGAGGGGAGACGATGGGACCACTGAGAAGCTGAAGAAGGCCAAGGACTCAGAGGAGA GGCGGGTGGAGCAGACCACGCCAGGAAAGACCAAATCAGATGCCACTGGCCAGACACAGCTTCCCTGCCA GGGATCCTCGAGGGACAGCACAGAACAGCTGGGCCCAGTATCTGGACCCTCTCCACCACTCACGGGTGCT AGTAGCTGCCCTGAGGCCTACAAGCGGCTCTTGTCAAGCTTTTACTGCAAAGGGGCGCATGGCATCATGT CACCACTGGCCAAAAAGAAACTCCTGGCCCAGGTCAGCAAGGCAGAGGCCTTGCAGTGCCAAGAAGAGGG CTGTCGCCATGGAGCAAGGAGCCCCAACAAGGACATTCAAGACAGTCCCCAGAACCTAAGAGGGCCGGCT GAGAACTCTGAACACCAGCTAACCCCCCGGGAAGGATTGCAGGCCCCTGGTGGGAGCACCAGGATGGAGG CCCAAGTGGGCCCCTGCCCTACAGCCCCCATGTTCTCAGGCTGTTTTCATGCGTACCCCACCGAGGTGCT GAAACCTGTCAGCCAGCACCCTAGGGACTTCTTCTCCGGCCTTAAAGACAGGGTGCTGTTGGGACCACCT GGTAAAGAAGAAGGTCCGACAACCAAAGAGTCCCATCTGGTGTGGGGTGGGGATGCCAACCACCCCTCTG CATTCCATAAAGGCAGCACAAGAAAAAGAAGTTTCTACCCCAAACCCAAAGCCTGCTGGGTGTCTCCCAT GGCCAAGGTCCCTACTGAGAGGCCTGGAGCCCCATCCCCTCATCCCAGTAGCCCAGGTCTTGGCAGTAAG CGCGGCTTGGAAGAAGAGGGATTCGCTCATGGTGGCAAGAAACTGAGGGCAGTGTCTCCCTTTCTGAAGG AGGTGGATTCCAAGGAGACTGGGGGCAAGCCTGCAGCCCCTGGCTTGGCTGTATCCTGTCTACTGGGCCC AACCCCGGGGCCCACTCCTCCAGAGGCCTACAGGGGCACCATGCTGCGGTGTCCTCTAAACTTCACCGGT AGCGCAGACCCTCTGAAGGGCCAGGCCTCACTCCCCTTCAGCCCCCTGGTCATCCCTGCTTTCCCAGCCC CGCTGTCCTACGCAACAGACTGGGTCCAGCTTCGTCTGCCTGGCACATGCCACCCGTCACAACCTATGCG GCACCTCACTTCTTCCACCTCAACACCAAACTGTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Restriction Sites: Sgfl-Mlul

ACCN: NM_001290727

Insert Size: 1296 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal

tag.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method: 1. Centrifuge at 5,000xg for 5min.

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

RefSeq: <u>NM 001290727.1</u>, <u>NP 001277656.1</u>

 RefSeq Size:
 5575 bp

 RefSeq ORF:
 1296 bp

 Locus ID:
 214855

 UniProt ID:
 Q3U108

Cytogenetics: 1 B



Gene Summary:

DNA-binding protein that may regulate transcription and act as a repressor by binding to ATrich stretches in the promoter region of target genes (By similarity). May positively regulate chondrocyte-specific transcription such as of COL2A1 in collaboration with SOX9 and positively regulate histone H3 acetylation at chondrocyte-specific genes. May stimulate earlystage chondrocyte differentiation and inhibit later stage differention (PubMed:21346191). Can repress ESR1-mediated transcriptional activation; proposed to act as corepressor for selective nuclear hormone receptors (By similarity). As RNA-binding protein involved in the regulation of inflammatory response by stabilizing selective inflammation-related mRNAs, such as IL6, STAT3 and TBX21. Binds to stem loop structures located in the 3' UTRs of IL6, STAT3 and TBX21 mRNAs; at least for STAT3 prevents binding of ZC3H12A to the mRNA stem loop structure thus inhibiting its degradation activity. Contributes to elevated IL6 levels possibly implicated in autoimmunity processes. IL6-dependent stabilization of STAT3 mRNA may promote differentiation of naive CD4+ T-cells into T-helper Th17 cells (PubMed:23676272, PubMed:27022145). In CD4+ T-cells may also inhibit RORC-induced Th17 cell differentiation independently of IL6 signaling (PubMed:24782182). Stabilization of TBX21 mRNA contributes to elevated interferon-gamma secretion in Th1 cells possibly implicated in the establishment of septic shock (PubMed:27671645).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (6) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream start codon, compared to variant 1. The encoded protein (isoform 6) has a shorter N-terminus, compared to isoform 1.

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